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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,423	03/25/2004	Kazuhito Kishi	251024US2	6954
22850	7590	09/21/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			ROTH, LAURA K	
			ART UNIT	PAPER NUMBER
			2852	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/808,423	KISHI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Laura K. Roth	2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10 and 13 is/are rejected.
- 7) ☒ Claim(s) 9, 12, and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/9/04-4/27/05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

***Information Disclosure Statement***

The information disclosure statement filed 8/9/04 through 4/27/05 fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information disclosure statement has been placed in the application file, but the information referred to therein has not been considered.

Special note: The patent matter listed on the included PTO-1449 forms submitted 8/9/04 through 4/27/05 have been considered, as it had been listed on both the proper formal forms and the informal forms. The serial number references included only on the informal forms have not been considered.

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 'L' (p.23, ln.16; p.62, ln.21), and reference numbers S211, S212, S213, S214, S215, S216, S217, S221, S222, S223, S224, S225, S226, S227, S228, S229, S230, S231, S232, S233, S234, S235, S236, S237, S238, S241, S242, S243, S244, S245, S246, S247, and S248 (p.46-58). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The disclosure is objected to because of the following informalities: the phrase "such as copier" should be rewritten as "such as **copiers**" (p.2, ln.11), the phrase "As a heat roller manner, a fixing method is widely used in terms of safety" should be rewritten as " As a fixing method, a heat roller manner is widely used for safety" (p.2, ln.18-19), the phrase "it would take long time" should be rewritten as "it would take **a** long time" (p.3, ln.9), the phrase "the user may feel inconvenience to the image forming apparatus" should be rewritten as " the user may feel **inconvenienced by** the image forming apparatus " (p.4, ln.16), the phrase "save as a large amount of power consumption as" should be rewritten as "save as **large an** amount of **power as**" (p.4, ln.18-19), the phrase "even if the temperature of a heating roller is attempted to rise in short time" should be rewritten as "Even if an attempt is made to raise the temperature of a heating roller in a short time" (p.5, ln.14-15), and reference number 105 should read 205 (p.42, ln.20).

Appropriate correction is required.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: #86 (fig.2), #131 (fig.4). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the

filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claims 5, and 7-12 are objected to because the limitation of "from not an[the] external power source but the electricity storage device" is a negative limitation on a feature that has not been positively recited in the claims.

Claim 7 is objected to because of the following informalities: the phrase "at start time of power supply thereto" should be rewritten as "at a start time for supplying power thereto " (cl.7, ln.5). Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8, 10, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujita et al. (US Pub No. 2002/0043523). Fujita et al. (US Pub No. 2002/0043523)

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teach a heating device comprising: a heating part having (fig.5, #2) at least one heat generation part generating heat (fig.5, #2a&2b); an electricity storage device (fig.5, #4) supplying electric power at a variable output voltage to the heating part (fig.5, circuit formed between #4 and #2b), said electricity storage device having at least one chargeable-dischargeable capacitor (fig.5, see capacitor in item #4); a control part (fig.5, #8) controlling the output voltage of the electricity storage device; and a temperature detection part (fig.12, #5) detecting a temperature of a portion heated by the heat generation part (fig.12, see relation between #5 & 1), wherein the heat generation part generates heat by using electric power supplied from the electricity storage device (para.0076, ln.5-8), and when the temperature detected by the temperature detection part is higher than or equal to a predefined temperature, the control part sets a voltage of the capacitor such that said voltage of the capacitor is lower than or equal to a maximum voltage of the capacitor (para.0076, ln.8-18; by the nature of a capacitor, the voltage at all times must be set at a voltage lower than or equal to the maximum voltage of that capacitor).

Regarding claim 2, Fujita et al. (US Pub No. 2002/0043523) teach a fixing device for fixing an image on a recording medium (fig.12, #1 & 2), comprising: a heating device, comprising: a heating part having (fig.5, #2) at least one heat generation part generating heat (fig.5, #2a&2b); an electricity storage device (fig.5, #4) supplying electric power at a variable output voltage to the heating part (fig.5, circuit formed between #4 and #2b), said electricity storage device having at least one chargeable-dischargeable capacitor (fig.5, see capacitor in item #4); a control part (fig.5, #8) controlling the output voltage of

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the electricity storage device; and a temperature detection part (fig.12, #5) detecting a temperature of a portion heated by the heat generation part (fig.12, see relation between #5 & 1), wherein the heat generation part generates heat by using electric power supplied from the electricity storage device (para.0076, ln.5-8), and when the temperature detected by the temperature detection part is higher than or equal to a predefined temperature, the control part sets a voltage of the capacitor such that said voltage of the capacitor is lower than or equal to a maximum voltage of the capacitor (para.0076, ln.8-18; by the nature of a capacitor, the voltage at all times must be set at a voltage lower than or equal to the maximum voltage of that capacitor); and a fixing part heated by the heat generation part (fig.12, #1, with respect to #3 & 4), wherein the recording medium passes in contact with or near the fixing part (para.0090, ln.10-14).

Regarding claim 3, Fujita et al. (US Pub No. 2002/0043523) teach an image forming apparatus (fig.17), comprising: a fixing device for fixing an image on a recording medium (fig.17, #116), comprising: a heating device, comprising: a heating part having (fig.5, #2) at least one heat generation part generating heat (fig.5, #2a&2b); an electricity storage device (fig.5, #4) supplying electric power at a variable output voltage to the heating part (fig.5, circuit formed between #4 and #2b), said electricity storage device having at least one chargeable-dischargeable capacitor (fig.5, see capacitor in item #4); a control part (fig.5, #8) controlling the output voltage of the electricity storage device; and a temperature detection part (fig.12, #5) detecting a temperature of a portion heated by the heat generation part (fig.12, see relation between #5 & 1), wherein the heat generation part generates heat by using electric power supplied from



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the electricity storage device (para.0076, ln.5-8), and when the temperature detected by the temperature detection part is higher than or equal to a predefined temperature, the control part sets a voltage of the capacitor such that said voltage of the capacitor is lower than or equal to a maximum voltage of the capacitor (para.0076, ln.13-18; when the temperature is from a predetermined lower temperature to a predetermined upper temperature, the controller causes the capacitor to be at a voltage lower than or equal to the maximum voltage [by default]); and a fixing part heated by the heat generation part (fig.12, #1, with respect to #3 & 4), wherein the recording medium passes in contact with or near the fixing part (para.0090, ln.10-14), wherein the temperature detection part is disposed in an interior of the image forming apparatus (if the temperature detection part fig.12, #5 is disposed next to the fixing roller, #1, then by default it must be disposed in the interior of the apparatus of fig.17, since #1 is also disposed in the interior), and when a temperature of the interior is higher than or equal to a predefined temperature, the control part regulates a voltage of the capacitor such that a voltage of the capacitor is lower than or equal to a maximum voltage of the capacitor (para.0076, ln.8-18; by the nature of a capacitor, the voltage at all times must be set at a voltage lower than or equal to the maximum voltage of that capacitor).

Regarding claim 4, Fujita et al. (US Pub No. 2002/0043523) teach an image forming apparatus (fig.17), comprising: a fixing device for fixing an image on a recording medium (fig.17, #116), comprising: a heating device, comprising: a heating part having (fig.5, #2) at least one heat generation part generating heat (fig.5, #2a&2b); an electricity storage device (fig.5, #4) supplying electric power at a variable output voltage

to the heating part (fig.5, circuit formed between #4 and #2b), said electricity storage device having at least one chargeable-dischargeable capacitor (fig.5, see capacitor in item #4); a control part (fig.5, #8) controlling the output voltage of the electricity storage device; and a mode detection part (fig.1, #10 CPU) detecting an operational mode of the image forming apparatus, wherein the heat generation part generates heat by using electric power supplied from the electricity storage device (para.0076, ln.5-8), and when the operational mode detected by the mode detection part is a save mode, the control part regulates a voltage of the capacitor such that said voltage of the capacitor is lower than or equal to a maximum voltage of the capacitor (para.0069, ln.1-10); and a fixing part heated by the heat generation part (fig.12, #1, with respect to #3 & 4), wherein the recording medium passes in contact with or near the fixing part (para.0090, ln.10-14).

Regarding claim 5, Fujita et al. (US Pub No. 2002/0043523) teach a fixing device (fig.31) for fixing a toner on a sheet, comprising: at least one electricity storage device (fig.39, #18); a heat generation part (fig.39, #3) generating heat by using electric power supplied from the electricity storage device; a fixing member (fig.31, #1) heating the toner on the sheet to fix the toner on the sheet, said fixing member heated by the heat generation part (fig.31, #3); and a power control part (circuit of fig.39 with switch 15 closed as shown) controlling to supply electric power from not an external power source but the electricity storage device to the heat generation part.

Regarding claim 6, Fujita et al. (US Pub No. 2002/0043523) teach the aspects of claim 5 as well as teaching that the electricity storage device comprises a capacitor (fig.39, #18; see also para.0176,ln.5-6).

Regarding claim 7, Fujita et al. (US Pub No. 2002/0043523) teach all of the limitations of claim 5 as well as teaching that the power control part controls to supply electric power from not the external power source but the electricity storage device to the heat generation part at start time of power supply thereto (para.0176, ln.6-10).

Regarding claim 8, Fujita et al. (US Pub No. 2002/0043523) teach the limitations of claim 5 and further teach an embodiment wherein the power control part, when the unheated fixing member is heated to a toner fixable temperature, supplies electric power from not the external power source but the electricity storage device to the heat generation part (para.0176, ln.6-10).

Regarding claim 10, Fujita et al. (US Pub No. 2002/0043523) teach the limitations of the fixing device of claim 5 and further teach that the power control part comprises: a selection part alternatively selecting one of a first mode and a second mode, said first mode in which electric power is supplied from not the external power source but the electricity storage device to the heat generation part, said second mode in which electric power is supplied from not the electricity storage device but the external power source to the heat generation part. In paragraph 0176, lines 6-17, two modes, warm-up and after warm-up, are described wherein in the warm-up mode the capacitor feeds the heat generation part and in the after warm-up mode the external power source is connected to the heat generation part.

Regarding claim 13, Fujita et al. (US Pub No. 2002/0043523) teach an image forming apparatus (fig.52), comprising: a fixing device (fig.52, #121) for fixing a toner on a sheet, comprising: at least one electricity storage device (fig.15, #17); a heat

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generation part generating heat by using electric power supplied from the electricity storage device (fig.15, #4); a fixing member heating the toner on the sheet to fix the toner on the sheet (fig.12, #1), said fixing member heated by the heat generation part (fig.12, #4); and a power control part controlling to supply electric power from not an external power source but the electricity storage device to the heat generation part (para.0096, ln.6-10; also see circuit fig.15), wherein the sheet on which a toner image is formed in accordance with an electrophotographic method is carried to the fixing device (see illustrated paper path in fig.52).

#### ***Allowable Subject Matter***

Claims 9, 11, and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

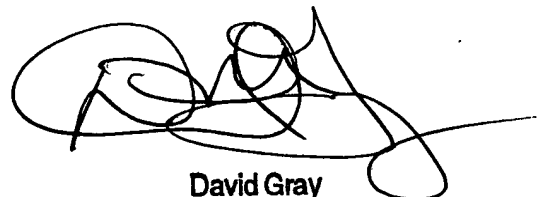
The following is a statement of reasons for the indication of allowable subject matter: Prior art does not disclose or suggest the claimed situation “wherein the power control part, when a temperature of the fixing member drops..., supplies electric power from not the external power source but the electricity storage device” of claim 9, the claimed “second mode in which electric power is supplied from both of the electricity storage device and the external power source” of claim 11 and the claimed “plurality of heaters... at least one of [which] is connected to the electricity storage device and the external power source” of claim 12 in combination with the remaining claim elements as set forth in claims 9, 11, and 12.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura K. Roth whose telephone number is (571)272-2154. The examiner can normally be reached on Monday-Friday, 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David M. Gray can be reached on (571)272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LKR  
9/16/2005



David Gray  
Primary Examiner